Natural Heritage & Endangered Species Program
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Green Rock-cress

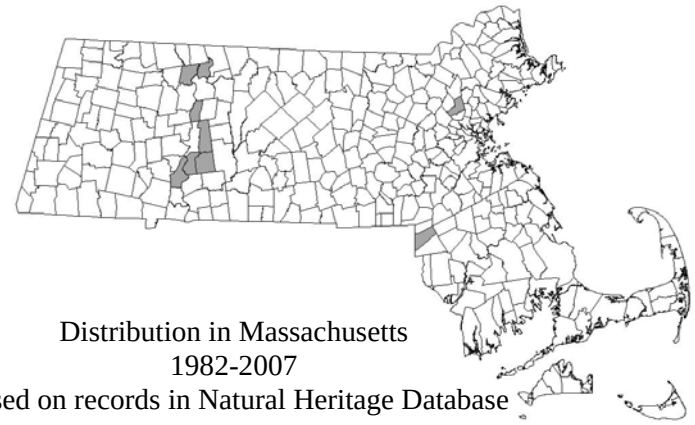
Boechera missouriensis

State Status: **Threatened**
Federal Status: None

Description: Green Rock-cress (*Boechera missouriensis*) is a biennial herb of sub-acid ledges and rocky woods. A member of the mustard family (Brassicaceae), it has creamy-white flowers that bloom in May and early June.

Aids to identification: It is best to observe Green Rock-cress in both flower and fruit to confirm the identification. A hairless (glabrous) plant, 8 to 20 inches (20–50 cm) in height, the clasping stem leaves are numerous (averaging 25 internodes to the first flower), up to 3 inches (8 cm) in length, and somewhat overlapping. The basal leaves are arranged in a rosette, and are up to 3.5 inches (9 cm) long, and 0.6 inch (1.5 cm) wide; they are dentate to pinnately lobed. The flowers are cream colored and have four petals that are twice as long as the sepals. Fruits (siliques) are long (2.5–3.5 inches; 6–9 cm) and very narrow (<1 inch; 2 cm). They first grow erect, but later arch outwards, with the tip pointing down. Seeds are conspicuously winged and are arranged in one row. The fruits are present from late June through August.

Similar species: Green Rock-cress resembles several other mustards that occur in Massachusetts. Hairy Rock-cress (*Arabis pycnocarpa*), Drummond's Rock-cress (*Boechera stricta*), and Tower Mustard (*Turritis glabr*a) all have straight, erect pods that do not arch outwards at maturity. Sicklepod (*B. canadensis*) has pods that are curved, but the stem leaves are not clasping at the base. Smooth Rock-cress (*B. laevigata*) (Threatened) is glaucous (coated with a white-waxy bloom), has fewer, larger stem leaves, and flower petals not or barely longer than the sepals.



Distribution in Massachusetts
1982-2007
Based on records in Natural Heritage Database

Gleason, H.A. 1952. *The New Britton and Brown Illustrated Flora of the Northeastern United States and Adjacent Canada*. Published for the NY Botanical Garden by Hafner Press. New York.

Habitat: Green Rock-cress inhabits non-acidic ledges in rocky woods and hills with full to filtered light exposure, and mesic to dry soil. Associated vegetation may include Red Oak (*Quercus rubra*), Hop Hornbeam (*Ostrya virginiana*), Pignut Hickory (*Carya glabra*), Sugar Maple (*Acer saccharum*), Wild Columbine (*Aquilegia canadensis*), Polypody Fern (*Polypodium virginianum*), Pale Corydalis (*Corydalis sempervirens*), and Pussytoes (*Antennaria* spp).

Threats: Green Rock-cress is often overshaded when habitat sites succeed to closed-canopy forest due to an absence of natural or anthropogenic disturbance (fire, cutting, mowing, grazing). Invasive exotic shrubs and vines may over-shade or out-compete Green Rock-cress at some sites.

Flowering time in Massachusetts

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
				■	■						

Fruiting time in Massachusetts

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
					■	■	■				

Please allow the Natural Heritage & Endangered Species Program to continue to conserve the biodiversity of Massachusetts with a contribution for 'endangered wildlife conservation' on your state income tax form as these donations comprise a significant portion of our operating budget.

Range: Green Rock-cress occurs discontinuously from Maine, New York, and Wisconsin south to northern Georgia, Indiana, and Oklahoma. The plant is rare in most states where it is known to occur, including Georgia, Iowa, Kansas, Maine, Maryland, Michigan, New Hampshire, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Vermont, and Wisconsin; it is historically known from Kentucky.

Population status in Massachusetts: Green Rock-cress is listed under the Massachusetts Endangered Species Act as Threatened. All listed species are legally protected from killing, collection, possession, or sale, and from activities that would destroy habitat and thus directly or indirectly cause mortality or disrupt critical behaviors. Green Rock-cress is currently known from Bristol, Middlesex, Franklin, Hampshire, and Hampden Counties, with most sites for this species in the latter three. It is historically known from Essex and Suffolk Counties.

Management recommendations: As with many rare species, the exact management needs of Green Rock-cress are not known. Sites should be monitored for over-shading caused by forest succession, and for invasive plant species. Habitat sites that do not receive enough light can be managed with canopy thinning or prescribed burning. To avoid inadvertent harm to rare plants, all active management of rare plant populations (including invasive species removal) should be planned in consultation with the Massachusetts Natural Heritage & Endangered Species Program.